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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,876	09/27/2005	David A. Fish	GB 030031	1759

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EXAMINER	
TRAN, MY CHAU T	

ART UNIT	PAPER NUMBER
2629	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/550,876	FISH ET AL.	
	Examiner	Art Unit	
	MY-CHAU T. TRAN	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 December 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11,13,14,16 and 17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *5-9 and 14* is/are allowed.

6)☒ Claim(s) *1-4,10,11,13,16 and 17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 September 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Application and Claims Status

1. Applicant's amendment and response filed 12/15/2008 are acknowledged and entered.

2. Claims 1-15 were pending. Applicants have amended claims 1-11, 13, and 14; cancelled claims 12 and 15; and added claims 16 and 17. Therefore, claims 1-11, 13, 14, 16, and 17 are currently pending and are under consideration in this Office Action. Additionally, it is noted that in the amendment filed applicant has identified claim 1 as being "currently presented", yet there are markings showing changes that have been made to instant claim 1. Appropriate correction is required.

Status of Claim(s) Objection(s) and /or Rejection(s)

3. The rejection of claim 14 under 35 USC 102(b) as being anticipated by Dawson et al. (US Patent 6,229,506 B1) has been withdrawn in light of applicant's amendments of claim 14 and cancellation of claim 15.

4. The rejection of claim 14 under 35 USC 102(e) as being anticipated by Fish et al. (US Patent Application Publication US 2006/0208979 A1; *Effective filing date of 02/27/2004*) has been withdrawn in view of applicant's amendments of claim 14 and cancellation of claim 15.

5. Please note that the following action has been made non-final in view of the fact that the indicated allowability of claims 4 and 12 are withdrawn upon further reconsideration, and in view of Fish et al. (US Patent Application Publication US 2006/0208979 A1).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-3, 13, and 16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s) at the time the application was filed had possession of the claimed invention. (This is a new matter rejection.)

A. Claim 1 recites the added limitation of '*the second drive transistor being driven with a reduced duty cycle for long enough for a desired voltage level be stored on the first storage capacitor*'. This limitation, which further functionally define the instant claimed '*second drive transistor*', is not supported by the originally filed specification and/or claims; nor has applicant provided any indication where such support exists. See MPEP § 714.02, 5th paragraph, last sentence; MPEP § 2163.02; and MPEP § 2163.06. For example, the originally filed specification discloses that the second drive transistor can be operated with low duty cycle so that the effects of ageing are minimized (see instant specification on pg. 5, lines 17-20; pg. 6, lines 15-18; pg. 8, line 31 thru pg. 9, line 1; pg. 12, lines 26-27). Therefore, the originally filed specification does not provide support for this added limitation. Furthermore, the original claims do not recite this added limitation, i.e. '*the second drive transistor being driven with a reduced duty cycle for long enough for a desired voltage level be stored on the first storage capacitor*'. Consequently, this limitation has no specification or original claim support, and it is considered new matter.

B. New claim 16 recites the limitation of '*wherein the second storage capacitor is connected between the gate and a drain of the second drive transistor*'. This limitation, which narrows the structural feature of the instant claimed second storage capacitor, is not supported by the originally filed specification and/or claims; nor has applicant provided any indication where such support exists. See MPEP § 714.02, 5th paragraph, last sentence; MPEP § 2163.02; and MPEP § 2163.06. For example, the originally filed specification discloses that the second storage capacitor is connected between the gate and source of the second drive transistor (see instant specification on pg. 11, lines 30-32; pg. 13, lines 3-5; pg. 14, lines 14-16). Therefore, the originally filed specification does not provide support for this limitation. Furthermore, the original claims do not recite this limitation, i.e. '*wherein the second storage capacitor is connected between the gate and a drain of the second drive transistor*'. Accordingly, this limitation has no specification or original claim support, and it is considered new matter.

If applicants disagree, applicant should present a detailed analysis as to why the claimed subject matter has clear support in the specification.

8. Claim 17 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s) at the time the application was filed had possession of the claimed invention. (This is a new matter rejection.)

New claim 17 recites the limitation of '*the second drive transistor is driven with a reduced duty cycle for long enough for a desired voltage level be stored on the first storage*

capacitor'. This limitation, which further functionally define the instant claimed '*second drive transistor*', is not supported by the originally filed specification and/or claims; nor has applicant provided any indication where such support exists. See MPEP § 714.02, 5th paragraph, last sentence; MPEP § 2163.02; and MPEP § 2163.06. For example, the originally filed specification discloses that the second drive transistor can be operated with low duty cycle so that the effects of ageing are minimized (see instant specification on pg. 5, lines 17-20; pg. 6, lines 15-18; pg. 8, line 31 thru pg. 9, line 1; pg. 12, lines 26-27). Therefore, the originally filed specification does not provide support for this limitation. Furthermore, the original claims do not recite this limitation, i.e. '*the second drive transistor is driven with a reduced duty cycle for long enough for a desired voltage level be stored on the first storage capacitor*'. Therefore, this limitation has no specification or original claim support, and it is considered new matter.

If applicants disagree, applicant should present a detailed analysis as to why the claimed subject matter has clear support in the specification.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1-3, 13, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Dawson et al. (US Patent 6,229,506 B1).

For ***claims 1-3 and 13***, Dawson et al. disclose a variety of active matrix light emitting diode (LED) pixel structure for an active matrix display (see e.g. Abstract; col. 2, lines 13-25; figs. 1-4 and 6). The active matrix display is art recognized to comprise an array of display pixels (see e.g. col. 1, lines 19-27; fig. 1). In one embodiment as illustrated figure 3, the LED pixel structure comprises four transistors (ref. #360, 365, 370, and 375), two capacitors (ref. #350 and 355), and a LED (ref. #OLED) (refers to instant claimed light emitting display element and instant claim 13) (see e.g. col. 4, lines 41-55). The transistor (ref. #375) (refers to instant claimed first driving transistor) and the LED (ref. #OLED) are connected in series between the power line (ref. #390) and data line (ref. #310) that provide both reference and data voltages (refers to instant claimed power supply lines) (see e.g. col. 4, lines 41-67; fig. 3). The capacitor (ref. #350) (refers to instant claimed second capacitor) is connected to the gate of transistor (ref. 365) (refers to instant claimed second transistor) (see e.g. fig. 3). The capacitor (ref. #355) is connected to both the transistor of reference characters 375 and 365 (refers to instant claim 2). The transistor (ref. #360) (refers to instant claimed address transistor) is connected to the data line (ref. #310) (refers to instant claimed data input line) and the select line (ref. #320) (refers to instant claimed input to the pixel) (see e.g. fig. 3). In addition, Dawson et al. also disclose the driving method of this active matrix display wherein the transistor (ref. #365) is isolated during the auto zero phase and it is not isolated during the load data phase and illuminating phase, (i.e. the programming phases) (see e.g. col. 5, lines 1-31). This implies that transistor (ref. #365) can

perform the function as claimed in claim 1 regarding the newly added functional limitation of "*operable only during pixel programming*".

Additionally, the functional limitation of claim 1, i.e. '*the second drive transistor being driven with a reduced duty cycle for long enough for a desired voltage level be stored on the first storage capacitor*', does not impart any structural distinction between the instant claimed second drive transistor and the transistor of reference #365 of Dawson et al., and as a result the device of Dawson et al. would still anticipate the presently claimed apparatus since it meets all the structural limitations, i.e. each pixel comprises a light emitting display element, power supply lines, two transistors, and two capacitors in the device of instant claimed claim 1. See MPEP § 2114, which states as follows:

> *APPARATUS CLAIMS MUST BE STRUCTURALLY DISTINGUISHABLE FROM THE PRIOR ART*
> **>While features of an apparatus may be recited either structurally or functionally, claims< directed to >an< apparatus must be distinguished from the prior art in terms of structure rather than function.** *>In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997)* (The absence of a disclosure in a prior art reference relating to function did not defeat the Board's finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference); see also *In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971); < In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959).* "[A]pparatus claims cover what a device is, not what a device does." *Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)* (emphasis in original).

And also that:

> *MANNER OF OPERATING THE DEVICE DOES NOT DIFFERENTIATE APPARATUS CLAIM FROM THE PRIOR ART*
> **A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim.** *Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).*

For ***claim 17***, Dawson et al. disclose a variety of active matrix light emitting diode (LED) pixel structure for an active matrix display (see e.g. Abstract; col. 2, lines 13-25; figs. 1-4 and 6). The active matrix display is art recognized to comprise an array of display pixels (see e.g. col. 1, lines 19-27; fig. 1). In one embodiment as illustrated figure 3, the LED pixel structure comprises

four transistors (ref. #360, 365, 370, and 375), two capacitors (ref. #350 and 355), and a LED (ref. #OLED) (refers to instant claimed light emitting display element) (see e.g. col. 4, lines 41-55). The transistor (ref. #375) (refers to instant claimed first driving transistor) and the LED (ref. #OLED) are connected in series between the power line (ref. #390) and data line (ref. #310) that provide both reference and data voltages (see e.g. col. 4, lines 41-67; fig. 3). The capacitor (ref. #350) is connected to the gate of transistor (ref. 365) (refers to instant claimed second transistor) (see e.g. fig. 3). Additionally, the functional limitations of claim 17, i.e. '*wherein the input voltage is added to a threshold voltage of the second drive transistor to form a combined voltage which is applied to the gate-source of the second drive transistor*' and '*wherein the display element is driven using the first drive transistor based on the stored gate-source voltage of the first drive transistor, and the second drive transistor is driven with a reduced duty cycle for long enough for a desired voltage level be stored on the first storage capacitor*', does not impart any structural distinction between the instant claimed device and the device of Dawson et al., and as a result the device of Dawson et al. would still anticipate the presently claimed apparatus since it meets all the structural limitations, i.e. each pixel comprises a light emitting display element, two transistors, and one capacitor in the device of instant claimed claim 17. See MPEP § 2114, which states as follows:

> *APPARATUS CLAIMS MUST BE STRUCTURALLY DISTINGUISHABLE FROM THE PRIOR ART*
> **>While features of an apparatus may be recited either structurally or functionally, claims< directed to >an< apparatus must be distinguished from the prior art in terms of structure rather than function.** *>In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997)* (The absence of a disclosure in a prior art reference relating to function did not defeat the Board's finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference); see also *In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971); < In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959).* "[A]pparatus claims cover what a device is, not what a device does." *Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)* (emphasis in original).

And also that:

MANNER OF OPERATING THE DEVICE DOES NOT DIFFERENTIATE APPARATUS CLAIM FROM THE PRIOR ART

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).*

Therefore, the device of Dawson et al. does anticipate the instant claimed invention.

Response to Arguments

11. Applicant's arguments directed to the above 102 rejection were considered but they are not persuasive for the following reasons. Please note that the above rejection has been modified from it original version to more clearly address applicant's newly amended and/or added claims and/or arguments.

[1] Applicant argues that the device of Dawson et al. does not anticipate the instant claimed invention for Dawson et al. does not teach that '*the second drive transistor being driven with a reduced duty cycle for long enough for a desired voltage level be stored on the first storage capacitor*'. Thus, the rejection should be withdrawn.

This is not found persuasive for the following reasons:

[1] The examiner respectfully disagrees. It is the examiner's position that the device of Dawson et al. does anticipate the instant claimed invention. The added limitation of '*the second drive transistor being driven with a reduced duty cycle for long enough for a desired voltage level be stored on the first storage capacitor*' does not impart any structural distinction between the instant claimed second drive transistor and the transistor of reference #365 of figure 3 of Dawson et al. See MPEP § 2114, which states as follows:

APPARATUS CLAIMS MUST BE STRUCTURALLY DISTINGUISHABLE FROM THE PRIOR ART

>While features of an apparatus may be recited either structurally or functionally, claims< directed to >an< apparatus must be distinguished from the prior art in terms of structure rather than function. *>In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32*

> *(Fed. Cir. 1997)* (The absence of a disclosure in a prior art reference relating to function did not defeat the Board's finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference); see also *In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971); < In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959).* "[A]pparatus claims cover what a device is, not what a device does." *Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)* (emphasis in original).
>
> *MANNER OF OPERATING THE DEVICE DOES NOT DIFFERENTIATE APPARATUS CLAIM FROM THE PRIOR ART*
>
> **A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim.** *Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).*

Therefore, the teachings of Dawson et al. do anticipate the device of the instant claims, and the rejection is maintained.

12. Claims 1-4, 10, 11, 13, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Fish et al. (US Patent Application Publication US 2006/0208979 A1; *Effective filing date of 02/27/2004*).

The applied reference has common inventors, i.e. David A. Fish and Jason R. Hector, with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

For ***claims 1-3 and 13***, Fish et al. disclose a variety of active matrix light emitting diode (LED) pixel structure for an active matrix display (see e.g. Abstract; sections: [0017]-[0024], and [0027]-[0029]; figs. 4, 6, 8, 11, 13, 14, 16, 18, 20, 22, and 24). In one embodiment as illustrated by figure 18, the LED pixel structure comprises six transistors (ref. #16, 22, 34, 36,

62, and 121), three capacitors (ref. #30, 40, and 120), and display element (ref. #2) that is an LED (refers to instant claimed light emitting display element and instant claim 13) (see e.g. sections: [0104]-[0112]). The transistor (ref. #16) is an addressing transistor (refers to instant claim 3) that is connected to the row conductor (ref. #4) (refers to instant claimed input) and the column conductor (ref. #6) (refers to instant claimed data input line) (see sections: [0007], [0070], [0114]; figs. 2, 3, 4, and 18). The transistor (ref. #22) (refers to instant claimed first driving transistor) is connected to the display element (ref. #2) and the power supply line (ref. #26) in series (see e.g. fig. 18). The capacitor (ref. #30) (refers to instant claimed first storage capacitor and instant claim 2) is between the transistor (ref. #22) (refers to instant claimed first driving transistor) and transistor (ref. #36) (refers to instant claimed second driving transistor) (see e.g. fig. 18). The capacitor (ref. #40) (refers to instant claimed second storage capacitor) is connected to the transistor (ref. #36) (refers to instant claimed second driving transistor) (see e.g. fig. 18).

Additionally, the functional limitation of claim 1, i.e. '*the second drive transistor being driven with a reduced duty cycle for long enough for a desired voltage level be stored on the first storage capacitor*', does not impart any structural distinction between the instant claimed second drive transistor and the transistor of reference #36 of Fish et al., and as a result the device of Fish et al. would still anticipate the presently claimed apparatus since it meets all the structural limitations, i.e. each pixel comprises a light emitting display element, power supply lines, two transistors, and two capacitors in the device of instant claimed claim 1. See MPEP § 2114, which states as follows:

> *APPARATUS CLAIMS MUST BE STRUCTURALLY DISTINGUISHABLE FROM THE PRIOR ART*
> **>While features of an apparatus may be recited either structurally or functionally, claims< directed to >an< apparatus must be distinguished from the prior art in terms of structure rather than function.**

> *In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997)* (The absence of a disclosure in a prior art reference relating to function did not defeat the Board's finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference); see also *In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971); < In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959).* "[A]pparatus claims cover what a device is, not what a device does." *Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)* (emphasis in original).

And also that:

> *MANNER OF OPERATING THE DEVICE DOES NOT DIFFERENTIATE APPARATUS CLAIM FROM THE PRIOR ART*
> **A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim.** *Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).*

For ***claim 4***, Fish et al. disclose a variety of active matrix light emitting diode (LED) pixel structure for an active matrix display (see e.g. Abstract; sections: [0017]-[0024], and [0027]-[0029]; figs. 4, 6, 8, 11, 13, 14, 16, 18, 20, 22, and 24). In one embodiment as illustrated by figure 20, the LED pixel structure comprises six transistors (ref. #16, 22, 34, 36, 62, and 121), three capacitors (ref. #30, 40, and 120), and display element (ref. #2) that is an LED (refers to instant claimed light emitting display element) (see e.g. sections: [0104]-[0112]). The transistor (ref. #16) is an addressing transistor that is connected to the row conductor (ref. #4) (refers to instant claimed input) and the column conductor (ref. #6) (refers to instant claimed data input line) (see sections: [0007], [0070], [0114]; figs. 2, 3, 4, 18, and 20). The transistor (ref. #22) (refers to instant claimed first driving transistor) is connected to the display element (ref. #2) and the power supply line (ref. #26) in series (see e.g. fig. 20). The capacitor (ref. #30) (refers to instant claimed first storage capacitor) is between the transistor (ref. #22) (refers to instant claimed first driving transistor) and transistor (ref. #36) (refers to instant claimed second driving transistor) (see e.g. fig. 20). The capacitor (ref. #40) (refers to instant claimed second storage capacitor) is connected to the transistor (ref. #36) (refers to instant claimed second driving

transistor) (see e.g. fig. 18). The shorting transistor (ref. #121b) is connected across the capacitor (ref. #40) (refers to instant claimed second storage capacitor) (see e.g. section: [0118]; fig. 20).

For ***claims 10 and 11***, Fish et al. disclose Fish et al. disclose a variety of active matrix light emitting diode (LED) pixel structure for an active matrix display (see e.g. Abstract; sections: [0017]-[0024], and [0027]-[0029]; figs. 4, 6, 8, 11, 13, 14, 16, 18, 20, 22, and 24). In one embodiment as illustrated by figure 18, the LED pixel structure comprises six transistors (ref. #16, 22, 34, 36, 62, and 121), three capacitors (ref. #30, 40, and 120), and display element (ref. #2) that is an LED (refers to instant claimed light emitting display element and instant claim 13) (see e.g. sections: [0104]-[0112]). The transistor (ref. #16) is an addressing transistor that is connected to the row conductor (ref. #4) (refers to instant claimed input) and the column conductor (ref. #6) (refers to instant claimed data input line) (see sections: [0007], [0070], [0114]; figs. 2, 3, 4, and 18). The transistor (ref. #22) (refers to instant claimed first driving transistor) is connected to the display element (ref. #2) and the power supply line (ref. #26) in series (see e.g. fig. 18). The capacitor (ref. #30) (refers to instant claimed first storage capacitor and instant claim 2) is between the transistor (ref. #22) (refers to instant claimed first driving transistor) and transistor (ref. #36) (refers to instant claimed second driving transistor) (see e.g. fig. 18). The capacitor (ref. #40) (refers to instant claimed second storage capacitor) is connected to the transistor (ref. #36) (refers to instant claimed second driving transistor) (see e.g. fig. 18). The threshold voltage capacitor (ref. #120) (refers to instant claimed voltage compensation circuitry/third capacitor and instant claim 11) is between the capacitor (ref. #40) (refers to instant claimed second storage capacitor) and the transistor (ref. #36) (refers to instant claimed second driving transistor) (see e.g. section: [0112]; fig. 18). The threshold voltage

capacitor (ref. #120) is also connected to two transistors (ref. #121 and 34) (refers to instant claimed *transistors to provide a charging path to enable the third storage capacitor to be charged to a voltage above the threshold voltage of the second drive transistor*) (see sections: [0112] thru [0116]; fig. 18).

For ***claim 17***, Fish et al. disclose a variety of active matrix light emitting diode (LED) pixel structure for an active matrix display (see e.g. Abstract; sections: [0017]-[0024], and [0027]-[0029]; figs. 4, 6, 8, 11, 13, 14, 16, 18, 20, 22, and 24). In one embodiment as illustrated by figure 18, the LED pixel structure comprises six transistors (ref. #16, 22, 34, 36, 62, and 121), three capacitors (ref. #30, 40, and 120), and display element (ref. #2) that is an LED (refers to instant claimed light emitting display element and instant claim 13) (see e.g. sections: [0104]-[0112]). The transistor (ref. #16) is an addressing transistor that is connected to the row conductor (ref. #4) and the column conductor (ref. #6) (see sections: [0007], [0070], [0114]; figs. 2, 3, 4, and 18). The transistor (ref. #22) (refers to instant claimed first driving transistor) is connected to the display element (ref. #2) and the power supply line (ref. #26) in series (see e.g. fig. 18). The capacitor (ref. #30) (refers to instant claimed first storage capacitor) is between the transistor (ref. #22) (refers to instant claimed first driving transistor) and transistor (ref. #36) (refers to instant claimed second driving transistor) (see e.g. fig. 18). The capacitor (ref. #40) is connected to the transistor (ref. #36) (see e.g. fig. 18). The threshold voltage capacitor (ref. #120) is between the capacitor (ref. #40) and the transistor (ref. #36) (refers to instant claimed second driving transistor) (see e.g. section: [0112]; fig. 18). Additionally, the functional limitations of claim 17, i.e. '*wherein the input voltage is added to a threshold voltage of the second drive transistor to form a combined voltage which is applied to the gate-source of the*

second drive transistor' and '*wherein the display element is driven using the first drive transistor based on the stored gate-source voltage of the first drive transistor, and the second drive transistor is driven with a reduced duty cycle for long enough for a desired voltage level be stored on the first storage capacitor*', does not impart any structural distinction between the instant claimed device and the device of Fish et al., and as a result the device of Fish et al. would still anticipate the presently claimed apparatus since it meets all the structural limitations, i.e. each pixel comprises a light emitting display element, two transistors, and one capacitor in the device of instant claimed claim 17. See MPEP § 2114, which states as follows:

> *APPARATUS CLAIMS MUST BE STRUCTURALLY DISTINGUISHABLE FROM THE PRIOR ART*
> **>While features of an apparatus may be recited either structurally or functionally, claims< directed to >an< apparatus must be distinguished from the prior art in terms of structure rather than function.** *>In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997)* (The absence of a disclosure in a prior art reference relating to function did not defeat the Board's finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference); see also *In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971); < In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959).* "[A]pparatus claims cover what a device is, not what a device does." *Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)* (emphasis in original).

And also that:

> *MANNER OF OPERATING THE DEVICE DOES NOT DIFFERENTIATE APPARATUS CLAIM FROM THE PRIOR ART*
> **A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim.** *Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).*

Therefore, the devices of Fish et al. do anticipate the instant claimed invention.

Response to Arguments

13. Applicant's arguments directed to the above 102(e) rejection were considered but they are not persuasive for the following reasons. Please note that the above rejection has been modified from it original version to more clearly address applicant's newly amended and/or added claims and/or arguments.

[1] Applicant alleges that '*the effective filing date of the present application of March 29, 2003 is before the Fish PCT filing date of February 27, 2004, Fish is not available as prior art with regard to the present application*'. Thus, the rejection should be withdrawn.

This is not found persuasive for the following reasons:

[1] The examiner respectfully disagrees. It is the examiner's position that the reference of Fish et al. is available as prior art wherein the devices of Fish et al. do anticipate the instant claimed invention. First, it is not disputed that the instant application is a 371 of PCT/IB04/00869, which is filed on 03/16/2004, and as a result the effective filing date of the instant application is the filing date of the PCT/IB04/00869, which is filed on 03/16/2004. That is the effective filing date of the instant application is ***not*** 03/29/2003 as indicated by applicant. See MPEP § 706.02(a)VI and 1893.03(b). Second, the examiner agrees that the prior art of Fish et al. is a 371 of PCT/IB04/00647, which is filed on 02/27/2004, and as a result its effective filing date is 02/27/2004, which is filed before the instant application. Third, the filing date of 03/29/2003 is the filing date of the foreign application of United Kingdom 0307320.2 for which the instant application claimed foreign priority, and this filing date is ***not*** the effective filing date of the instant application. See MPEP § 706.02(a)VI.

Therefore, the reference of Fish et al. is available as prior art wherein the teachings of Fish et al. do anticipate the device of the instant claims as discussed above, and the rejection is maintained.

Double Patenting

14. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

15. Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 4, and 6 of copending Application No. 10/548,343 (US Patent Application Publication US 2006/0208979 A1; hereinafter refers to as Fish et al.). Although the conflicting claims are not identical, they are not patentably distinct from each other because both the apparatus of the instant claim 1 and the apparatus of claims 1, 4, and 6 of Fish et al. have similar structural features.

Specifically, claim 1 of Fish et al. claimed an active matrix display device comprising a current-driven light emitting display element (refers to instant claimed light emitting display element), a drive transistor (refers to instant claimed first driving transistor) for driving a current through the display element, a storage capacitor (refers to instant claimed first storage capacitor) for storing a voltage to be used for addressing the drive transistor; and a discharge transistor (refers to instant claimed second driving transistor) for discharging the storage capacitor thereby

to switch off the drive transistor. Claim 4 claimed a discharge capacitor (refers to instant claimed second storage capacitor) is provided between the gate of the discharge transistor and a constant voltage line. Claim 6 claimed the drive transistor is connected between a power supply line and the display element. Additionally, the added functional limitation of claim 1, i.e. '*the second drive transistor being driven with a reduced duty cycle for long enough for a desired voltage level be stored on the first storage capacitor*', does not impart any structural distinction between the instant claimed second drive transistor and the discharge transistor of Fish et al., and as a result the device of Fish et al. would still anticipate the presently claimed apparatus since it meets all the structural limitations, i.e. each pixel comprises a light emitting display element, power supply lines, two transistors, and two capacitors in the device of instant claimed claim 1. See MPEP § 2114, which states as follows:

> *APPARATUS CLAIMS MUST BE STRUCTURALLY DISTINGUISHABLE FROM THE PRIOR ART*
> **>While features of an apparatus may be recited either structurally or functionally, claims< directed to >an< apparatus must be distinguished from the prior art in terms of structure rather than function.** *>In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997)* (The absence of a disclosure in a prior art reference relating to function did not defeat the Board's finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference); see also *In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971); < In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959).* "[A]pparatus claims cover what a device is, not what a device does." *Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)* (emphasis in original).

And also that:

> *MANNER OF OPERATING THE DEVICE DOES NOT DIFFERENTIATE APPARATUS CLAIM FROM THE PRIOR ART*
> **A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim.** *Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).*

That is the apparatus of the instant application is generic to the apparatus of Fish et al. or in other word claim 1 are anticipated by claims 1, 4, and 6 of copending Application No. 10/548,343 (US Patent Application Publication US 2006/0208979 A1). Consequently, the

examined claims would be obvious over the claims of copending Application No. 10/548,343 (US Patent Application Publication US 2006/0208979 A1).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

16. Applicant's arguments directed to the above nonstatutory obviousness-type double patenting rejection were considered but they are not persuasive for the following reasons. Please note that the above rejection has been modified from it original version to more clearly address applicant's newly amended and/or added claims and/or arguments.

[1] Applicant contends that the added functional limitation of claim 1, i.e. '*the second drive transistor being driven with a reduced duty cycle for long enough for a desired voltage level be stored on the first storage capacitor*' would overcome the nonstatutory obviousness-type double patenting rejection. Thus, the rejection should be withdrawn.

This is not found persuasive for the following reasons:

[1] The examiner respectfully disagrees. It is the examiner's position that the examined claims would be obvious over the claims of copending Application No. 10/548,343 (US Patent Application Publication US 2006/0208979 A1). The added limitation of '*the second drive transistor being driven with a reduced duty cycle for long enough for a desired voltage level be stored on the first storage capacitor*' does not impart any structural distinction between the instant claimed second drive transistor and the discharge transistor of Fish et al. See MPEP § 2114, which states as follows:

APPARATUS CLAIMS MUST BE STRUCTURALLY DISTINGUISHABLE FROM THE PRIOR ART
>While features of an apparatus may be recited either structurally or functionally, claims< directed to >an< apparatus must be distinguished from the prior art in terms of structure rather than function. *>In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997)* (The absence of a disclosure in a prior art reference relating to function did not defeat the Board's finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference); see also *In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971); < In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959).* "[A]pparatus claims cover what a device is, not what a device does." *Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)* (emphasis in original).

MANNER OF OPERATING THE DEVICE DOES NOT DIFFERENTIATE APPARATUS CLAIM FROM THE PRIOR ART
A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).*

Therefore, the examined claims would be obvious over the claims of copending Application No. 10/548,343 (US Patent Application Publication US 2006/0208979 A1), and the rejection is maintained.

17. Claim 17 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/548,343 (US Patent Application Publication US 2006/0208979 A1; hereinafter refers to as Fish et al.). Although the conflicting claims are not identical, they are not patentably distinct from each other because both the apparatus of the instant claim 17 and the apparatus of claim 1 of Fish et al. have similar structural features.

Specifically, claim 1 of Fish et al. claimed an active matrix display device comprising a current-driven light emitting display element (refers to instant claimed light emitting display element), a drive transistor (refers to instant claimed first driving transistor) for driving a current through the display element, a storage capacitor (refers to instant claimed first storage capacitor)

for storing a voltage to be used for addressing the drive transistor; and a discharge transistor (refers to instant claimed second driving transistor) for discharging the storage capacitor thereby to switch off the drive transistor. Additionally, the functional limitations of claim 17, i.e. '*wherein the input voltage is added to a threshold voltage of the second drive transistor to form a combined voltage which is applied to the gate-source of the second drive transistor*' and '*wherein the display element is driven using the first drive transistor based on the stored gate-source voltage of the first drive transistor, and the second drive transistor is driven with a reduced duty cycle for long enough for a desired voltage level be stored on the first storage capacitor*', does not impart any structural distinction between the instant claimed device and the device of Fish et al., and as a result the device of Fish et al. would still anticipate the presently claimed apparatus since it meets all the structural limitations, i.e. each pixel comprises a light emitting display element, two transistors, and one capacitor in the device of instant claimed claim 17. See MPEP § 2114, which states as follows:

> *APPARATUS CLAIMS MUST BE STRUCTURALLY DISTINGUISHABLE FROM THE PRIOR ART*
> **>While features of an apparatus may be recited either structurally or functionally, claims< directed to >an< apparatus must be distinguished from the prior art in terms of structure rather than function.** *>In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997)* (The absence of a disclosure in a prior art reference relating to function did not defeat the Board's finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference); see also *In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971); < In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959).* "[A]pparatus claims cover what a device is, not what a device does." *Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)* (emphasis in original).

And also that:

> *MANNER OF OPERATING THE DEVICE DOES NOT DIFFERENTIATE APPARATUS CLAIM FROM THE PRIOR ART*
> **A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim.** *Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).*

That is the apparatus of the instant application is generic to the apparatus of Fish et al. or in other word claim 17 is anticipated by claim 1 of copending Application No. 10/548,343 (US Patent Application Publication US 2006/0208979 A1). Consequently, the examined claims would be obvious over the claims of copending Application No. 10/548,343 (US Patent Application Publication US 2006/0208979 A1).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

18. Claims 5-9 and 14 are allowable.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MY-CHAU T. TRAN whose telephone number is (571)272-0810. The examiner can normally be reached on Monday: 8:00-2:30; Tuesday-Thursday: 7:30-5:00; Friday: 8:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerpe can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MY-CHAU T. TRAN/
Primary Examiner, Art Unit 2629

February 3, 2009